

The use of different protocols is very specifically and clearly illustrated in the Specification.

For example, data transmission through an optical cable is illustrated as data transmission through optical cable 11 (shown in Figure 1). The Specification at page 4, lines 5 through 7 indicates that synchronous optical network (Sonet), optical fibre channel, Ethernet, or another optical protocol is used for propagating signals within cable 11.

Data transmission between an integrated electrical connector and a matching electrical connector is illustrated in Figure 4 and Figure 5 as data transmission between integrated electrical connector 101 and an electrical connector 32 on PCB 15 (shown in Figure 4) of a target device. The Specification indicates that integrated electrical connector 101 is compatible with a connector standard such as universal serial bus (USB), USB 2, IEEE 1394 (Firewire), Firewire 800, Ethernet, Enterprise Systems Connection (ESCON), Infiniband, a proprietary system interconnection, or another connector standard.

Thus the Specification makes it clear that while transmission through optical cable 11 is compatible with an optical protocol, transmission between integrated electrical connector 101 and electrical connector 32 may be compatible with a standard protocol used for electrical connections, such as USB, USB 2, IEEE 1394 (Firewire), Firewire 800, etc.

A person of ordinary skill in the art would recognize that Applicant is very specifically teaching use of an optical protocol for use propagating signals through an optical cable while presenting an electrical cable that is compatible

with a standard protocol used for electrical connections, such as USB, USB 2, IEEE 1394 (Firewire), Firewire 800, etc.

The above-described use of presenting an electrical interface compatible with a standard electrical connection protocol while using an optical protocol for data transmission is very clearly taught by Applicant's Specification. Further, this teaching of data transmission through the optical cable using a protocol that is different than a protocol used for data transmission between an integrated electrical connector and a matching electrical connector is subject matter not disclosed or suggested by the art cited by Examiner.

Rejection Under 35 U.S.C. § 102 (b)

Examiner has rejected claims 1 through 20 under 35 U.S.C. 102 (b) respectfully traverses the rejection.

Criteria for a Rejection under 35 U.S.C. § 102

The criteria for a rejection under 35 U.S.C. § 102(b) has been clearly defined by the courts and confirmed by the U.S. Patent and Trademark Office. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Examiner has failed to show that each and every element set forth in the claims is found either expressly or inherently in Bucklen. Based on this, Applicant is traversing the rejections of the claims.

Below, Applicant clearly and unambiguously points out subject matter within each independent claim that is not disclosed by Bucklen. On the basis of this, Applicant believes all the claims are patentable over Bucklen.

Independent Claim 1

Independent claim 1 sets out a connection cable comprising an integrated electrical connector permanently fixed to an optical cable. Data transmission through the optical cable uses a protocol that is different than a protocol used for data transmission between the integrated electrical connector and the matching electrical connector. This is not disclosed or suggested by Bucklen.

In Bucklen, electrical signals are directly translated into optical signals and optical signals are directly translated into electrical signals. See Figure 1 of Bucklen. There is no change in protocol between electrical signals and optical signals. There is no circuitry included in Bucklen that would be able to make such a protocol change. Bucklen merely discloses an electrically-terminated, optically-coupled communications cable. Nothing in Bucklen discloses or suggests data transmission through an optical cable using a protocol that is different than a protocol used for data transmission between an integrated electrical connector and a matching electrical connector, as in claim 1 of the present case.

Examiner has stated: "The data transmission protocol through the cable is through transmission of optical signals wherein the data transmission between the connectors include electrical signal which uses a protocol different than that of optical signal transmission through the cable." This is an incorrect reading of Bucklen.

Bucklen includes no discussion of protocol. Bucklen merely discloses and discusses hardware implementation. In the hardware implementation it would be impossible to utilize different protocols for optical transmission than for electrical connection. This is because, the hardwire connections shown by Bucklen show electrical signals being directly turned into optical signals (through the use of hard-wired semiconductor lasers 32) and show optical signals being directly turned into electrical signals (through the use of hard-wired photodiodes 34). Because of the hardware connections disclosed in Bucklen, there has to be a one-to-one correspondence between every electrical signal and every optical signal. Thus, it would be impossible, given the disclosed hardware connections disclosed by Bucklen, for the electrically terminated cables disclosed by Bucklen to utilize different protocols for optical transmission than for electrical connection.

Independent Claim 8

Independent claim 8 sets out a method for constructing a connection cable in which an integrated electrical connector is permanently fixed to an optical cable. Data transmission through the optical cable uses a protocol that is

different than a protocol used for data transmission between the integrated electrical connector and the matching electrical connector. This is not disclosed or suggested by Bucklen.

As discussed above, in Bucklen, electrical signals are directly translated into optical signals and optical signals are directly translated into electrical signals. See Figure 1 of Bucklen. There is no change in protocol between electrical signals and optical signals. There is no circuitry included in Bucklen that would be able to make such a protocol change. Bucklen merely discloses an electrically-terminated, optically-coupled communications cable. Nothing in Bucklen discloses or suggests data transmission through an optical cable using a protocol that is different than a protocol used for data transmission between an integrated electrical connector and a matching electrical connector, as in claim 8 of the present case.

Independent Claim 15

Independent claim 15 sets out a method for connecting two target devices that comprises plugging a first integrated electrical connector permanently affixed to an optical cable into a matching electrical connector of a first target device, and comprises plugging a second integrated electrical connector permanently affixed to the optical cable into a matching electrical connector of a second target device. Data transmission through the optical cable uses a protocol that is different than a protocol used for data transmission between the



integrated electrical connector and the matching electrical connector. This is not disclosed or suggested by Bucklen.

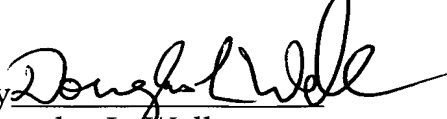
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Conclusion

Applicant believes the present application in condition for allowance and favorable action is respectfully requested.

Respectfully submitted,

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